IN THE CLAIMS:

Claims 1-32 were cancelled and claims 33-40 added in the previous Amendment (Amendment A). All pending claims and their present status are produced below.

1. (Canceled)
2. (Canceled)
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31. (Canceled)

32. (Canceled)

33. (Previously Presented) A method of predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server, the method comprising:

determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;

determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server;

determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and

determining a total response time based on the durations of the threads.

34. (Previously Presented) The method of claim 33, wherein said determining a set of network flow factors comprises generating a histogram of node send time, and determining the number of turns added per direction based on the histogram.

35. (Previously Presented) An apparatus for predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server, the apparatus comprising:

means for determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

means for determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;

means for determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server;

means for determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and

means for determining a total response time based on the durations of the threads.

36. (Previously Presented) The apparatus of claim 35, wherein said means for determining a set of network flow factors comprises means for generating a histogram of node send time, and means for determining the number of turns added per direction based on the histogram.

37. (Previously Presented) A computer readable medium comprising computer readable instructions which, when executed by a processing system, cause the processing system to perform a method of predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server, the method comprising:

determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;

determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server;

determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and

determining a total response time based on the durations of the threads.

38. (Previously Presented) The medium of claim 37, further comprising computer readable instructions which, when executed by the processing system, cause the processing system to generate a histogram of node send time and to determine the number of turns added per direction based on the histogram.

39. (Previously Presented) An apparatus for predicting the performance of an application in a multi-hop network, the multi-hop network comprising a client and a server, the apparatus comprising:

application factor logic for determining, for each thread of the application, a set of application factors corresponding to a set of functions performed by the application, the application factors being independent of the network and of a network flow control protocol, the application factors comprising average packet size and average node send time;

delay time logic for determining a set of network delay times corresponding to a series of network delay sources along the multi-hop network path, the network delay sources comprising a queuing delay, a bandwidth delay, a bottleneck delay, and one of a transmission delay, a constant delay, and a node delay;

flow factor logic for determining a set of network flow factors corresponding to the network flow control protocol, the network flow factors comprising a number of turns added per direction, the direction relative to the client and the server;

first duration logic for determining a duration of each thread of the application based on the application factors, the network delay times and the network flow factors; and

second duration logic for determining a total response time based on the durations of the threads.

40. (Previously Presented) The apparatus of claim 39, wherein said flow factor logic for determining a set of network flow factors comprises logic for generating a histogram of node send time, and logic for determining the number of turns added per direction based on the histogram.